

## AMENDMENTS TO THE CLAIMS

1           1.       (Withdrawn) A method of generating a plurality of custom browse  
2 hierarchies each representative of a unique subset of items, said method comprising:  
3           for each leaf node of a primary hierarchy representative of the items:  
4           establishing a search rule that comprises an aggregation of constraints specified  
5                 by the leaf node and its ancestors; and  
6           identifying all of the unique subsets that contain at least one of the items meeting  
7                 the aggregation of constraints; and  
8           creating a custom browse hierarchy for each of the unique subsets, said creating  
9                 further comprising retaining in the custom browse hierarchy only those  
10           leaf nodes, and their ancestors, from the primary hierarchy for which the  
11           unique subset has been identified by said identifying.

1           2.       (Withdrawn) The method of Claim 1 wherein each of the unique subsets are  
2 identified by a different subset ID, each of the items are stored in a database and each of the  
3 items comprising each of the unique subsets is stored in an entry of a subset ID table, the entry  
4 further containing the subset ID that identifies the unique subset to which the item belongs, said  
5 identifying further comprising:  
6           executing a search of the database to identify each of the items in the database that meet  
7                 the constraints; and  
8           for each of the items identified by said executing a search, performing a table join  
9                 between the identified item and the subset ID table to return a list of all subset  
10           IDS that are stored in an entry of the subset ID table with the identified item.

1           3.       (Withdrawn) The method of Claim 2 wherein said retaining further comprises:  
2           for each leaf node of the primary hierarchy:  
3           locating a next unprocessed leaf node of the primary hierarchy;  
4           retrieving the returned list of all subset IDs for the next unprocessed leaf node; and  
5           cloning the next unprocessed leaf node and its ancestors into the custom browse  
6                 hierarchy if the subset ID identifying the unique subset is contained in the  
7           returned list of all subset IDs for the unprocessed leaf node.

1           4.       (Withdrawn) The method of Claim 2 wherein said executing a search further  
2 comprises:  
3           translating the search rule to a database query;  
4           issuing the database query to a database server coupled to the database; and  
5           wherein the database server executes the search and performs the table join in accordance  
6           with the database query.

1           5.       (Withdrawn) The method of Claim 4 wherein said translating the search rule to a  
2 database query is performed by an application program being executed on an application server.

1           6.       (Withdrawn) The method of Claim 2 wherein the items are products or services,  
2 and the items are represented by catalog data stored in the database, the catalog data comprising  
3 a unique product identifier, one or more attributes, a unique value for each of the attributes, and  
4 associated descriptive information.

1           7.       (Withdrawn) The method of Claim 1 wherein each of the unique subsets of  
2 items comprises a custom catalog, and wherein the custom browse hierarchy generated for each  
3 of the unique subsets is operable to browse the custom catalog.

1           8.       (Withdrawn) The method of Claim 2 wherein said creating further comprises  
2 identifying each custom browse hierarchy with the subset ID used to identify the unique subset  
3 for which the custom browse hierarchy identified by the subset ID for display on a terminal  
4 having access to the database in response to a request identified by the subset ID.

1           9.       (Withdrawn) The method of Claim 8 wherein said providing further comprises:  
2           formatting the created custom browse hierarchy as one or more web pages; and  
3           transmitting the web pages over the Internet for display on the terminal using a web  
4           browser.

1           10.      (Withdrawn) The method of Claim 8 further comprising:  
2           formatting one or more copies of the created custom browse hierarchy; and  
3           exporting each formatted copy to an entity associated with the subset ID.

11. (Currently Amended) A method for generating, from a primary hierarchy of items, a plurality of custom browse hierarchies for unique subsets of the items in the primary hierarchy, wherein the primary hierarchy comprises leaf nodes and one or more ancestor nodes of one or more of the leaf nodes, each leaf node defines a set of one or more items that meets constraints of the leaf node and each ancestor node, if any, of the leaf node, and the constraints of each leaf node and each ancestor node, if any, of the leaf node comprise one or more attribute names and one or more attribute values, the method comprising:

~~for each custom browse hierarchy:~~ generating each of the plurality of hierarchies,

wherein generating each of the plurality of hierarchies comprises:

establishing a set of rules for the primary hierarchy, wherein each rule in the set of rules is associated with one of the leaf nodes and each ancestor node, if any, of the leaf node, and each rule comprises an aggregation of constraints specified by the leaf node and each ancestor node, if any, of the leaf node, wherein the constraints of each leaf node and each ancestor node, if any, of the leaf node in the aggregation of constraints are logically ~~ANDed~~ aggregated together;

identifying a rule subset of the set of rules, wherein each rule in the rule subset has constraints that are met by at least one of the items in the unique subset of items;

~~for each leaf node in the primary hierarchy,~~ including the leaf node, for each leaf node in the primary hierarchy, from the primary hierarchy in the custom browse hierarchy if the rule associated with the leaf node is included in the subset of rules and excluding the leaf node from the custom browse hierarchy if the rule associated with the leaf node is not included in the subset of rules;  
[[and]]

~~for each ancestor node in the primary hierarchy,~~ including the ancestor node, for each ancestor node in the primary hierarchy, from the primary hierarchy if at least one leaf node of the ancestor node is

32 included in the custom browse hierarchy and otherwise excluding  
33 the ancestor node from the custom browse hierarchy; and  
34 ~~wherein representing the custom browse hierarchy is represented~~ by all the  
35 included leaf nodes and included ancestor nodes, if any, of the  
36 primary hierarchy and the custom browse hierarchy represents a  
37 pared version of the primary hierarchy.

1 12. (Currently Amended) The method of Claim 11 wherein, for each custom browse  
2 hierarchy, each item in the unique subset of items for the custom browse hierarchy is identified  
3 by a subset ID in a subset ID table and associated with each rule met by the item, each of the  
4 items is stored in a database, and including the leaf node from the primary hierarchy in the  
5 custom browse hierarchy if the rule associated with the leaf node is included in the subset of  
6 rules and excluding the leaf node from the custom browse hierarchy if the rule associated with  
7 the leaf node is not included in the subset of rules further comprises:

8 searching the database to identify each of the items in the database that meets the  
9 constraints of at least one rule;

10 ~~for each of the items identified by searching the database, performing, for each of the~~  
11 items identified by searching the database, a table join between the identified item  
12 and the subset ID table to return a list of all subset IDs that are stored in an entry  
13 of the subset ID table with the identified item; and

14 including the leaf node from the primary hierarchy in the custom browse hierarchy if the  
15 rule associated with the leaf node is identified in the subset ID table and excluding  
16 the leaf node from the custom browse hierarchy if the rule associated with the leaf  
17 node is not identified in the subset ID table.

1 13. (Withdrawn) The apparatus of Claim 12 wherein said means for retaining further  
2 comprises:

3 for each leaf node of the primary hierarchy:

4 means for locating a next unprocessed leaf node of the primary hierarchy;

5 means for retrieving the returned list of all subset IDs for the next unprocessed leaf node;

6 and

7 means for cloning the next unprocessed leaf node and its ancestors into the custom  
8 browse hierarchy if the subset ID identifying the unique subset is contained in the  
9 returned list of all subset IDs for the unprocessed leaf node.

1 14. (Currently Amended) The method of Claim 12 wherein searching the database  
2 further comprises:  
3 translating each rule to a database query;  
4 issuing the database query to a database server coupled to the database; [[and]]  
5 ~~wherein the database server executes~~ executing the search ~~and performs the table join in~~  
6 accordance with the database query; and  
7 performing the table join in accordance with the database query.

1 15. (Previously Presented) The method of Claim 14 wherein translating the  
2 search rule to a database query is performed by an application program being executed on an  
3 application server.

1 16. (Withdrawn) The apparatus of Claim 12 wherein the items are products or  
2 services, and the items are represented by catalog data stored in the database, the catalog data  
3 comprising a unique product identifier, one or more attributes, a unique value for each of the  
4 attributes, and associated descriptive information.

1 17. (Withdrawn) The apparatus of Claim 11 wherein each of the unique subsets of  
2 items comprises a custom catalog, and wherein the custom browse hierarchy generated for each  
3 of the unique subsets is operable to browse the custom catalog.

1 18. (Withdrawn) The apparatus of Claim 12 wherein said means for creating further  
2 comprises means for identifying each custom browse hierarchy with the subset ID used to  
3 identify the unique subset for which the custom browse hierarchy is created, said apparatus  
4 further comprising:  
5 means for providing the custom browse hierarchy identified by the subset ID for display  
6 on a terminal having access to the database in response to a request identified by  
7 the subset ID.

1           19.     (Withdrawn) The apparatus of Claim 18 wherein said means for providing  
2 further comprises:  
3           means for formatting the created custom browse hierarchy as one or more web pages; and  
4           means for transmitting the web pages over the Internet for display on the terminal using a  
5           web browser.

1           20.     (Withdrawn) The apparatus of Claim 18 further comprising:  
2           means for formatting one or more copies of the created custom browse hierarchy; and  
3           means for exporting each formatted copy to an entity associated with the subset ID.

1           21.     (Currently Amended) A computer program product for generating, from a  
2 primary hierarchy of items, a plurality of custom browse hierarchies for unique subsets of  
3 the items in the primary hierarchy, wherein the primary hierarchy comprises leaf nodes  
4 and one or more ancestor nodes of one or more of the leaf nodes, each leaf node defines a  
5 set of one or more items that meets constraints of the leaf node and each ancestor node, if  
6 any, of the leaf node, and the constraints of each leaf node and each ancestor node, if any,  
7 of the leaf node comprise one or more attribute names and one or more attribute values  
8 said computer program product comprising:

9           a computer-readable storage medium; and

10          program instructions stored on said storage medium for:

11          establishing a set of rules for the primary hierarchy, wherein each rule in the set of

12                 rules is associated with one of the leaf nodes and each ancestor node, if

13                 any, of the leaf node, and each rule comprises an aggregation of

14                 constraints specified by the leaf node and each ancestor node, if any, of

15                 the leaf node, wherein the constraints of each leaf node and each ancestor

16                 node, if any, of the leaf node in the aggregation of constraints are logically

17                 ~~ANDed~~ aggregated together;

18                 identifying a rule subset of the set of rules, wherein each rule in the rule

19                         subset has constraints that are met by at least one of the items in

20                         the unique subset of items;

21                 for each leaf node in the primary hierarchy, including the leaf node from

22                         the primary hierarchy in the custom browse hierarchy if the rule

associated with the leaf node is included in the subset of rules and  
excluding the leaf node from the custom browse hierarchy if the  
rule associated with the leaf node is not included in the subset of  
rules; and  
for each ancestor node in the primary hierarchy, including the ancestor  
node from the primary hierarchy if at least one leaf node of the  
ancestor node is included in the custom browse hierarchy and  
otherwise excluding the ancestor node from the custom browse  
hierarchy;  
wherein the custom browse hierarchy is represented by all the included  
leaf nodes and included ancestor nodes, if any, of the primary  
hierarchy and the custom browse hierarchy represents a pared  
version of the primary hierarchy.

22. (Previously Presented) The computer program product of Claim 21  
wherein, for each custom browse hierarchy, each item in the unique subset of items for the  
custom browse hierarchy is identified by a subset ID in a subset ID table and associated with  
each rule met by the item, each of the items is stored in a database, and said program instructions  
for including the leaf node from the primary hierarchy in the custom browse hierarchy if the rule  
associated with the leaf node is included in the subset of rules and excluding the leaf node from  
the custom browse hierarchy if the rule associated with the leaf node is not included in the subset  
of rules comprise instructions for:  
executing a search of the database to identify each of the items in the database that meet  
the constraints of at least one rule;  
for each of the items identified by said executing a search, performing a table join  
between the identified item and the subset ID table to return a list of all subset IDs  
that are stored in an entry of the subset ID table with the identified item; and  
including the leaf node from the primary hierarchy in the custom browse hierarchy if the  
rule associated with the leaf node is identified in the subset ID table and excluding  
the leaf node from the custom browse hierarchy if the rule associated with the leaf  
node is not identified in the subset ID table.

1           23.     (Withdrawn) The computer program product of Claim 22 wherein said program  
2 instructions are further for:

3           for each leaf node of the primary hierarchy:

4           locating a next unprocessed leaf node of the primary hierarchy;

5           retrieving the returned list of all subset IDs for the next unprocessed leaf node; and

6           cloning the next unprocessed leaf node and its ancestors into the custom browse

7                 hierarchy if the subset ID identifying the unique subset is contained in the

8                 returned list of all subset IDs for the unprocessed leaf node.

1           24.     (Previously Presented)         The computer program product of Claim 22  
2 wherein said program instructions are further for:

3           translating each rule to a database query;

4           issuing the database query to a database server coupled to the database; and

5           wherein the database server executes the search and performs the table join in accordance

6                 with the database query.

1           25.     (Original)     The computer program product of Claim 24 wherein said program  
2 instructions for translating the search rule to a database query comprise an application program  
3 being executed on an application server.

1           26.     (Withdrawn) The computer program product of Claim 22 wherein the items are  
2 products or services, and the items are represented by catalog data stored in the database, the  
3 catalog data comprising a unique product identifier, one or more attributes, a unique value for  
4 each of the attributes, and associated descriptive information.

1           27.     (Withdrawn) The computer program product of Claim 21 wherein each of the  
2 unique subsets of items comprises a custom catalog, and wherein the custom browse hierarchy  
3 generated for each of the unique subsets is operable to browse the custom catalog.



1           28.     (Withdrawn) The computer program product of Claim 22 wherein said program  
2 instructions are further for identifying each custom browse hierarchy with the subset ID used to  
3 identify the unique subset for which the custom browse hierarchy is created, said program  
4 instructions further for:

5           providing the custom browse hierarchy identified by the subset ID for display on a  
6           terminal having access to the database in response to a request identified by the  
7           subset ID.

1           29.     (Withdrawn) The computer program product of Claim 28 wherein said program  
2 instructions are further for:

3           formatting the created custom browse hierarchy as one or more web pages; and  
4           transmitting the web pages over the Internet for display on the terminal using a web  
5           browser.

1           30.     (Withdrawn) The computer program product of Claim 28 further comprising  
2 program instructions for:

3           formatting one or more copies of the created custom browse hierarchy; and  
4           exporting each formatted copy to an entity associated with the subset ID.

1           31.     (Withdrawn) A computer system for generating a plurality of custom browse  
2 hierarchies each representative of a unique subset of items, said computer system comprising:

3           a memory means for storing program instructions for:  
4           for each leaf node of a primary hierarchy representative of the items:  
5           establishing a search rule that comprises an aggregation of constraints specified

6           by the leaf node and its ancestors; and  
7           identifying all of the unique subsets that contain at least one of the items meeting  
8           the aggregation of constraints; and

9           creating a custom browse hierarchy for each of the unique subsets, said creating  
10           further comprising retaining in the custom browse hierarchy only those  
11           leaf nodes, and their ancestors, from the primary hierarchy for which the  
12           unique subset has been identified by said identifying; and  
13           means for processing said program instructions.

1           32.     (Withdrawn) The computer system of Claim 31 wherein each of the unique  
2 subsets are identified by a different subset ID, each of the items are stored in a database and each  
3 of the items comprising each of the unique subsets is stored in an entry of a subset ID table, the  
4 entry further containing the subset ID that identifies the unique subset to which the item belongs,  
5 said program instructions further for:

6           executing a search of the database to identify each of the items in the database that meet  
7           the constraints; and

8           for each of the items identified by said executing a search, performing a table join  
9           between the identified item and the subset ID table to return a list of all subset IDs  
10          that are stored in an entry of the subset ID table with the identified item.

1           33.     (Withdrawn) The computer system of Claim 32 wherein said program  
2 instructions are further for:

3           for each leaf node of the primary hierarchy:

4           locating a next unprocessed leaf node of the primary hierarchy;

5           retrieving the returned list of all subset IDs for the next unprocessed leaf node; and

6           cloning the next unprocessed leaf node and its ancestors into the custom browse

7           hierarchy if the subset ID identifying the unique subset is contained in the

8           returned list of all subset IDs for the unprocessed leaf node.

1           34.     (Withdrawn) A custom browse hierarchy representative of a unique subset of  
2 items, said custom browse hierarchy generated by:

3           for each leaf node of a primary hierarchy representative of the items:

4           establishing a search rule that comprises an aggregation of constraints specified

5           by the leaf node and its ancestors; and

6           identifying all of the unique subsets that contain at least one of the items meeting

7           the aggregation of constraints; and

8           creating a custom browse hierarchy for the unique subset, said creating further

9           comprising retaining in the custom browse hierarchy only those leaf

10          nodes, and their ancestors, from the primary hierarchy for which the

11          unique subset has been identified by said identifying.

1           35.     (Withdrawn) The custom browse hierarchy of Claim 34 wherein the unique  
2 subset is identified by a unique subset ID, each of the items is stored in a database and each of  
3 the items comprising the unique subset is stored in an entry of a subset ID table, the entry further  
4 containing the subset ID that identifies the unique subset, said identifying further comprising:  
5           executing a search of the database to identify each of the items in the database that meet  
6           the constraints; and  
7           for each of the items identified by said executing a search, performing a table join  
8           between the identified item and the subset ID table to return a list of all subset IDs  
9           that are stored in an entry of the subset ID table with the identified item.

1           36.     (Withdrawn) The custom browse hierarchy of Claim 35 wherein said retaining  
2 further comprises:  
3           for each leaf node of the primary hierarchy:  
4           locating a next unprocessed leaf node of the primary hierarchy;  
5           retrieving the returned list of all subset IDs for the next unprocessed leaf node; and  
6           cloning the next unprocessed leaf node and its ancestors into the custom browse  
7           hierarchy if the subset ID identifying the unique subset is contained in the  
8           returned list of all subset IDs for the unprocessed leaf node.